

P **Origanum majorana**

Common Name(s)

Marjoram, Sweet Marjoram

How Used

F

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	(+)-CAR-3-ENE	Essential Oil	--	--		
0	(+)-CARAN-TRANS-4-OL	Essential Oil	--	--		
0	(+)-MENTHA-1,8-DIENE	Essential Oil	--	--		
0	1,8-CINEOL	Essential Oil	--	--		
0	1,8-CINEOL	Leaf Essent. Oil	--	75000	-0.39968922610284335	
0	1-ETHOXY-2-P-MENTHENE	Essential Oil	--	7000		
0	1-ETHOXY-P-MENTH-2-ENE	Plant	--	--	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.	
0	3-BETA-HYDROXYURS-12-EN-28-OIC-ACID-3-O-BETA-D-GLUCOPYRANOSYL-(1->4)-O-BETA-D-XYLOPYRANOSIDE	Stem	--	13000		
0	4-ETHOXY-P-MENTH-1-ENE	Plant	--	--		
0	ALLO-AROMADENDRENE	Essential Oil	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation	
0	ALLO-AROMADENDRENE	Plant	--	--	Lawrence, B.M., Essential Oils	1976-1977,	
					Essential Oils	1978, Essential Oils 1979-1980.	
0	ALPHA-COPAENE	Plant	--	--	Lawrence, B.M., Essential Oils	1976-1977,	
					Essential Oils	1978, Essential Oils 1979-1980.	
0	ALPHA-COPAENE	Essential Oil	--	--			
0	ALPHA-ELEMENE	Essential Oil	--	--			
2	ALPHA-HUMULENE	Plant	--	--	Lawrence, B.M., Essential Oils	1976-1977,	
					Essential Oils	1978, Essential Oils 1979-1980.	
2	ALPHA-HUMULENE	Essential Oil	--	--			
0	ALPHA-HYDROXYDIHYDROCAFFEIC-ACID	Plant	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.		
11	ALPHA-PHELLANDRENE	Plant	18	103	-0.4516907541435066	Lawrence, B.M., Essential Oils	1976-1977,
					Essential Oils	1978, Essential Oils 1979-1980.	
11	ALPHA-PHELLANDRENE	Essential Oil	--	26000	-0.08979419499208481		

Chemical Plant Part			Low PPM	High PPM	StdDev	Reference	Citation
28	ALPHA-PINENE		Plant	15	86	-0.42061428285892105	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
28	ALPHA-PINENE		Essential Oil	--	19000	-0.39287982164920143	
13	ALPHA-TERPINENE		Leaf	138	1620	0.5247481960598754	
13	ALPHA-TERPINENE		Plant	183	1050	2.256141022146814	
13	ALPHA-TERPINENE		Leaf Essent. Oil	--	20000	0.9980633895203395	
13	ALPHA-TERPINENE		Essential Oil	--	68000	1.1298113026643404	
23	ALPHA-TERPINEOL		Leaf Essent. Oil	--	49000	0.12538106410891894	
23	ALPHA-TERPINEOL		Essential Oil	--	7000	-0.4630448703246903	
0	ALPHA-TERPINYL-ACETATE		Essential Oil	--	--		
0	ALPHA-TERPINYL-ACETATE		Plant	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	ALPHA-THUJENE		Plant	15	86	0.10728911049715678	
0	ALPHA-THUJENE		Essential Oil	--	19000	-0.27796616080745823	
36	ANETHOLE		Essential Oil	--	--		

Chemical Plant Part			Low PPM	High PPM	StdDev	Reference	Citation
0	APIGENIN-7-GLUCOSIDE		Plant	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
15	ARbutin		Leaf	--	--		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
15	ARbutin		Shoot	--	--		
112	ASCORBIC-ACID		Plant	514	555	-0.4633944303261279	USDA's Ag Handbook 8 and sequelae)
0	ASH		Plant	96900	123300	0.0413244786252859	
53	BETA-CAROTENE		Plant	48	52	-0.44555296413975976	USDA's Ag Handbook 8 and sequelae)
0	BETA-CARYOPHYLLENE		Plant	35	750	0.12906156273708783	
0	BETA-FARNESENE		Essential Oil	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	BETA-FARNESENE	Plant	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	BETA-PHELLANDRENE	Essential Oil	--	14000	0.06102018933373759	
3	BETA-PHELLANDRENE	Plant	27	155	0.6528644248365976	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
13	BETA-PINENE	Essential Oil	--	4000	-0.6415683948649324	
13	BETA-PINENE	Plant	6	34	-0.3987756455135756	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
47	BETA-SITOSTEROL	Plant	520	540	-0.002824127733764179	
0	BICYCLOGERMACRENE	Plant	12	69	-0.6425880627184439	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	BICYCLOGERMACRENE	Essential Oil	--	27000	1	
35	BORNEOL	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Chemical Plant Part			Low PPM	High PPM	StdDev	Reference	Citation
4	BORON		Plant	28	48	-0.3285060001497114	Betting on Boron, Unpublished draft by J. A. Duke on file at USDA, draft and papers relating to boron percentages. Includes Internat. Z. Vit. Ern. Forschung 43:1973 (boron).
4	CADINENE		Plant	--	--		
102	CAFFEIC-ACID		Leaf	--	14100	1.2401706840629567	
102	CAFFEIC-ACID		Shoot	--	--		
102	CAFFEIC-ACID		Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
28	CALCIUM		Plant	17925	23625	1.073474951470644	USDA's Ag Handbook 8 and sequelae)
2	CAMPESTEROL		Plant	--	30	-0.5969128791852656	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
0	CARBOHYDRATES		Plant	605600	654050	-0.11813185716958748	USDA's Ag Handbook 8 and sequelae)
37	CARVACROL		Essential Oil	388800	795000	1.956448823344398	

Chemical Plant Part			Low PPM	High PPM	StdDev	Reference	Citation
37	CARVACROL		Plant	1092	6261	0.6439962127754266	
19	CARVONE		Essential Oil	--	27000	-0.7525161257485199	
19	CARVONE		Plant	12	69	-0.42182429771324575	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
31	CARYOPHYLLENE		Plant	52	1307	1.1553486678162894	
31	CARYOPHYLLENE		Essential Oil	--	61000	0.37737527199565624	
3	CHAVICOL		Plant	138	791	1.414213562373095	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
77	CHLOROGENIC-ACID		Shoot	--	--		
0	CIS-3-ETHOXY-1-P-MENTHENE		Essential Oil	--	2000		
0	CIS-3-ETHOXY-P-MENTH-1-ENE		Plant	--	--		
0	CIS-4-ETHOXY-THUJANE		Essential Oil	--	52000		
0	CIS-4-ETHOXY-THUJANE		Plant	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	CIS-P-MENTH-2-EN-1-OL		Plant	60	344		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	CIS-P-MENTH-2-ENOL	Leaf Essent. Oil	--	30000		
0	CIS-PIPERITOL	Essential Oil	--	--	-1	
0	CIS-SABINENE-HYDRATE	Leaf	100	7965	3.162122330899287	
0	CIS-SABINENE-HYDRATE	Leaf Essent. Oil	20000	580000		
0	CIS-SABINENE-HYDRATE	Essential Oil	--	75000	1	
0	CIS-SABINENE-HYDRATE-ACETATE	Leaf Essent. Oil	--	110000		
0	CIS-SABINENE-HYDRATE-METHYL-ETHER	Leaf Essent. Oil	--	20000		
0	CIS-Z-P-MENTHEN-1-OL	Essential Oil	--	2000		
53	CITRAL	Plant	--	--		
12	COPPER	Plant	11	11	-0.33406963620245544	USDA's Ag Handbook 8 and sequelae)
4	COSMOIIN	Pollen Or Spore	--	--		
4	COSMOIIN	Shoot	--	--		
3	CYNAROSIDE	Shoot	--	--		
0	D-ALPHA-TERPINEOL	Plant	27	826	1	
0	D-LINALOL	Plant	918	5263	1	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.

Chemical Plant Part			Low PPM	High PPM	StdDev	Reference	Citation
0	D-LINALOOL		Plant	918	5263	1.3717619314396152	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
8	DELTA-3-CARENE		Plant	--	--		
0	DINATIN-7-GLUCOSIDE		Leaf	--	--		
13	DIOSMETIN		Shoot	--	--		
0	DIOSMETIN-7-GLUCOSIDE		Leaf	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
0	DIOSMETIN-7-GLUCURONIDE		Leaf	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	DIOSMETIN-7-O-BETA-GLUCURONIDE		Pollen Or Spore	--	--		
0	EO		Essential Oil	--	--		
0	EO		Plant	3000	17200	1.539818214457512	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
12	ESTRAGOLE	Plant	--	--	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.	
0	ETHYL-CAPRATE	Plant	--	--	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.	
0	ETHYL-CAPRATE	Essential Oil	--	61000		
1	ETHYL-LAURATE	Plant	--	--	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.	
0	ETHYL-LINILENATE	Plant	--	--	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.	
0	ETHYL-LINOLEATE	Plant	--	--	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
1	ETHYL-MYRISTATE	Plant	--	--	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.	
1	ETHYL-MYRISTATE	Essential Oil	--	--		
1	ETHYL-OLEATE	Plant	--	--	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.	
1	ETHYL-PALMITATE	Plant	--	--	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.	
0	ETHYL-STEARATE	Plant	--	--	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.	
0	ETHYL-TRANS-HEXADECENOATE	Essential Oil	--	--		
0	ETHYL-TRANSHEXADECANOATE	Plant	--	--	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.	
76	EUGENOL	Plant	200	1152	0.46992531158530604	
76	EUGENOL	Leaf Essent. Oil	--	255000	-0.34777061356900674	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	FAT	Plant	8000	77950	0.3824473420028041	USDA's Ag Handbook 8 and sequelae)
15	FIBER	Plant	170170	220600	-0.016312721496673874	
0	FIXED-OIL	Seed	--	--		
0	GAMMA-ELEMENE	Essential Oil	--	--		
0	GAMMA-ELEMENE	Plant	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
11	GAMMA-TERPINENE	Leaf Essent. Oil	--	180000	1.627787588377096	
11	GAMMA-TERPINENE	Leaf	210	2370	4.197708389548963	
11	GAMMA-TERPINENE	Essential Oil	48000	213000	2.0863713351738005	
35	GERANIOL	Essential Oil	--	--	-0.677218689998221	
35	GERANIOL	Plant	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	GERANIOL-ACETATE	Essential Oil	--	27000		
5	GERANYL-ACETATE	Plant	12	69	-0.4229146637825368	
32	HYDROQUINONE	Shoot	--	--		
32	HYDROQUINONE	Plant	--	--		
0	HYDROQUINONE-MONOMETHYL-ETHER	Shoot	--	--		
6	IRON	Plant	750	975	0.4098917877276588	USDA's Ag Handbook 8 and sequelae)

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation	
1	LABIATIC-ACID		Plant	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.	
1	LAURIC-ACID-ETHYL-ESTER		Essential Oil	--	--		
0	LEDENE		Plant	--	--	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.	
0	LEDENE		Essential Oil	--	--		
60	LIMONENE		Essential Oil	--	38000	-0.5183422055574805	
60	LIMONENE		Plant	18	103	0.5651398458031535	
60	LIMONENE		Leaf Essent. Oil	--	24000	-0.5721355904683862	
0	LINALOL		Plant	99	568	-0.3038061677841181	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
53	LINALOOL		Shoot	--	164100	5.787049323750151	
53	LINALOOL		Essential Oil	--	7000	-0.5517579885648786	
53	LINALOOL		Plant	99	568	0.4132286080067176	
0	LINALOOL-ACETATE		Essential Oil	--	34000	-0.3272680541058478	
7	LINALYL-ACETATE		Plant	3	17	0.8790079353067117	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
27	LINOLEIC-ACID	Seed	10000	10000	-0.8321526228533093	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	LINOLEIC-ACID-ETHYL-ESTER	Essential Oil	--	--		
0	LINOLENIC-ACID	Seed	27500	27500	-0.09978029895951895	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	LINOLENIC-ACID-ETHYL-ESTER	Essential Oil	--	--		
0	LUSITANICOSIDE	Plant	--	--		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
7	LUTEOLIN-7-GLUCOSIDE	Plant	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	LUTEOLIN-7-O-BETA-D-DIGLUCOSIDE	Pollen Or Spore	--	--		
65	MAGNESIUM	Plant	3300	3900	-0.0516230386408005	USDA's Ag Handbook 8 and sequelae)
0	MAJARONIN	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	MAJORANIN	Plant	--	--		
14	MANGANESE	Plant	54	54	-0.30787688494994525	USDA's Ag Handbook 8 and sequelae)
0	MENTHA-1,3-DIENE	Essential Oil	--	--		
63	MENTHOL	Essential Oil	--	--		
0	METHYL-ARBUTIN	Shoot	--	--		
0	METHYL-ARBUTIN	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
6	METHYL-CHAVICOL	Plant	96	550	-0.9033588179021271	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	MURWAOSIDE	Leaf	--	5025		
22	MYRCENE	Essential Oil	--	--		
22	MYRCENE	Plant	18	103	-0.36294107421133504	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	N-TRIACONTANE	Plant	--	182000		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	NEROL-ACETATE	Essential Oil	--	--		
5	NERYL-ACETATE	Plant	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
39	NIACIN	Plant	41	44	-0.45847508395560455	USDA's Ag Handbook 8 and sequelae)
2	OCIMENE	Leaf	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Chemical Plant Part			Low PPM	High PPM	StdDev	Reference	Citation
64	OLEANOLIC-ACID	Plant	4700	4700	0.19004070814741195	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
18	OLEIC-ACID	Seed	8000	8000	-0.9133355142467426	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
1	OLEIC-ACID-ETHYL-ESTER	Essential Oil	--	--			
4	ORIENTIN	Shoot	--	--			
25	P-COUMARIC-ACID	Leaf	--	1100	-0.06115839551859982		
0	P-CYMEN-8-OL	Essential Oil	--	--			
0	P-CYMEN-8-OL	Plant	8	43	-0.06112505014632677	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.	
16	P-CYMENE	Plant	21	120	-0.3655894027588645		
16	P-CYMENE	Leaf Essent. Oil	--	20000	-0.4814765484301064		
16	P-CYMENE	Essential Oil	--	47000	-0.2453610155054874		
1	PALMITIC-ACID-ETHYL-ESTER	Essential Oil	--	12000			
0	PENTOSANS	Plant	70000	76800	-1.0044263136260358		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
26	PHENOL	Plant	1431	8204	1	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
4	PHOSPHORUS	Plant	2670	3725	0.06551800424758951	USDA's Ag Handbook 8 and sequelae)
2	PHYTOSTEROLS	Plant	600	650	-0.8083557786797939	USDA's Ag Handbook 8 and sequelae)
0	PLANTEOSE	Seed	--	--		
14	POTASSIUM	Plant	14500	17225	-0.31886329834759486	USDA's Ag Handbook 8 and sequelae)
0	PROTEIN	Plant	121450	143100	-0.2488413430316014	
15	RIBOFLAVIN	Plant	3	3	-0.5861819139119265	USDA's Ag Handbook 8 and sequelae)
57	ROSMARINIC-ACID	Shoot	--	9400	-0.4142658927809455	
57	ROSMARINIC-ACID	Inflorescence	--	33000	-0.13649164081487425	
57	ROSMARINIC-ACID	Plant	33000	33000	0.281534733255827	Fitoterapia No.62: 166.
87	RUTIN	Shoot	--	--		
5	SABINENE	Essential Oil	--	82000	-0.015057370464564934	
5	SABINENE	Plant	75	430	4.99614301661853	
5	SABINENE	Leaf Essent. Oil	--	30000	-0.13554261008120452	

Chemical Plant Part			Low PPM	High PPM	StdDev	Reference	Citation
0	SALICYLIC-ACID-2-BETA-D-GLUCOSIDE		Leaf	--	--		
0	SAPONIN		Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	SODIUM		Plant	675	935	-0.25231992508556245	USDA's Ag Handbook 8 and sequelae)
0	STEARIC-ACID-ETHYL-ESTER		Essential Oil	--	--		
12	STIGMASTEROL		Plant	50	55	-0.7296625889468641	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
0	SYRINGIC-ACID-4-BETA-D-GLUCOSIDE		Leaf	--	--		
35	TANNIN		Plant	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
23	TERPINEN-4-OL		Leaf Essent. Oil	--	310000	2.081229334325422	
23	TERPINEN-4-OL		Essential Oil	--	103000	0.3836938468472445	
23	TERPINEN-4-OL		Leaf	135	1530	0.5332933928836353	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
23	TERPINEN-4-OL	Plant	1365	7826	5.665014759682814	
23	TERPINEN-4-OL	Shoot Essent. Oil	--	176700	1.412151043457717	
0	TERPINEN-4-OL-ACETATE	Essential Oil	--	61000	1	
0	TERPINEN-4-OL-METHYL-ETHER	Leaf Essent. Oil	--	20000		
0	TERPINEN-4-YL-ACETATE	Plant	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	TERPINENE	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	TERPINENOL	Plant	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
9	TERPINOLENE	Plant	75	430	3.057637791806235	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
9	TERPINOLENE	Leaf	50	600	0.5322296849470326	
9	TERPINOLENE	Essential Oil	--	20000	-0.2455444370688689	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
31	THIAMIN	Plant	3	3	-0.3909910138264638	USDA's Ag Handbook 8 and sequelae)
71	THYMOL	Essential Oil	15000	40000	-0.930874809378824	
71	THYMOL	Shoot Essent. Oil	--	115500	1.9615538252670992	
0	TRANS-3-ETHOXY-1-P-MENTHENE	Essential Oil	--	2000		
0	TRANS-3-ETHOXY-P-MENTH-1-ENE	Plant	--	--		
0	TRANS-4-ETHOXY-THUJANE	Plant	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	TRANS-4-ETHOXY-THUJANE	Essential Oil	--	213000		
8	TRANS-ANETHOLE	Plant	8	43	-0.45493255526565674	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	TRANS-P-MENTH-2-EN-1-OL	Plant	52	301		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	TRANS-P-MENTH-2-ENOL	Leaf Essent. Oil	--	50000		
0	TRANS-PIPERITOL	Plant	9	52		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	TRANS-PIPERITOL	Essential Oil	--	--		
0	TRANS-SABINENE-HYDRATE	Leaf Essent. Oil	--	60000	1	
0	TRANS-SABINENE-HYDRATE	Essential Oil	--	51000	1	
0	TRANS-SABINENE-HYDRATE	Plant	30	172	3.431164061315594	
0	TRANS-SABINENE-HYDRATE-METHYL-ETHER	Leaf Essent. Oil	--	60000		
0	TRANS-Z-P-MENTHEN-1-OL	Essential Oil	--	61000		
89	URSOLIC-ACID	Plant	500	2100	-0.695295811066768	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	URSOLIC-ACID-I	Plant	4700	4700		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	URSOLIC-ACID-II	Plant	1200	1200		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	VANILLIC-ACID-4-BETA-D-GLUCOSIDE	Leaf	--	--		
18	VITEXIN	Shoot	--	--		

Chemical Plant Part			Low PPM	High PPM	StdDev	Reference	Citation
0	WATER		Plant	74920	77880	-2.966987461751347	USDA's Ag Handbook 8 and sequelae)
77	ZINC		Plant	32	43	-0.09018412071860993	